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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,284	02/18/2004	Floyd Backes	160-032	2061
34845	7590	05/16/2006		
McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			EXAMINER PHILPOTT, JUSTIN M	
			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,284

Applicant(s)

BACKES ET AL.

Examiner

Justin M. Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 20, 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. Specifically, applicant's arguments that the newly added claim limitations are not taught by the previously cited art is moot, since these claim limitations are taught by the newly cited art of Lappetelainen et al., as discussed in the following office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,693,915 to Lappetelainen et al.

Regarding claim 1, English teaches an apparatus included in a wireless device (e.g., mobile node 902a, see FIGS. 9 and 10) in a wireless communications environment including access points (e.g., 904a-904c) and stations (e.g., 902a-902b), wherein stations gain access by associating with one of the access points, comprising: logic for associating the wireless device with a current access point (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a associating with one of access points 904a or 904b); logic for ascertaining whether the wireless device should attempt to associate with an alternative access point (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a makes the decision of which access point 904a or 904b to associate with); and logic for requesting association with the alternative access point if it is ascertained that the wireless device should attempt to associate with the alternative access point (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining is based at least in-part on signal strengths of transmissions from the current and alternative access points, or that the current and alternative access points operate on the same channel.

Lappetelainen, like English, also teaches stations gain network access by associating with one a plurality of access point (e.g., see col. 5, line 53 – col. 6, line 29 regarding access points AP1 and AP2 and corresponding communications), and further, specifically teaches ascertaining based at least in-part on the signal strength of transmissions from current and alternative access

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points (e.g., see col. 12, lines 21-26 regarding selection of access point having “the greatest signal strength” measured). Still further, Lappetelainen teaches an embodiment wherein the current and alternative access points operate on the same channel (e.g., see col. 12, lines 21-26 regarding “a channel on which data frames of more than one access point have been detected”, wherein an access point is selected from a plurality of access points on that channel in accordance with signal strength measurements). Additionally, the teachings of Lappetelainen provide access point association devices and methods which increase the utilization ratio of each data transmission channel (e.g., see col. 5, lines 12-14) and reduce interference to a level lower than conventional prior art systems (e.g., see col. 5, lines 15-18) without requiring complex algorithms (e.g., see col. 5, lines 18-20). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Lappetelainen to the access point association in the invention of English in order to provide an increased utilization ratio of each data transmission channel (e.g., see col. 5, lines 12-14) and reduced interference that is at a level lower than conventional prior art systems (e.g., see col. 5, lines 15-18), all without requiring complex algorithms (e.g., see col. 5, lines 18-20).

Regarding claim 2, English teaches logic for automatically collecting information about other access points (e.g., see paragraph 0178 regarding mobile node 902 being informed about information regarding access points 904a, 904b and 904c; and also paragraphs 0076, 0100, 0141 and 0163 regarding channels).

Regarding claim 3, English teaches logic for ascertaining that the wireless device should attempt to associate with the alternative access point if the alternative access point is closer than

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the current access point (e.g., see paragraphs 0170-0180 regarding mobile node 902 determining which access point to associate with based upon proximity to the access points).

Regarding claim 4, English teaches calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on “x” samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); calculating a second biased distance between the wireless device and the alternative access point based on “y” samples (e.g., see paragraphs 0175-0180 regarding mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where “y” (e.g., known position of mobile node 902 and known position of access point 904b) is less than “x” (e.g., three or more samples for triangulating the current position of mobile node 902); and ascertaining that the alternative access point is closer than the current access point if the second biased distance is less than the first biased distance (e.g., see paragraphs 0164-0181, particularly paragraphs 0170 and 0175-0180 regarding mobile node 902 determining which access point to associate with).

Regarding claim 5, English teaches requesting association by sending a message to the alternative access point (e.g., see paragraph 0171 regarding mobile node 902a deciding to associate with a different access point and handing off communications to the different access point after authenticating with the different access point).

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application Nos. 10/780,775; 10/780,804; 10/781,157; 10/781,214; 10/781,250; and 10/781,121. Although the conflicting claims are not identical, they are not patentably distinct from each other because each recite either identical or substantially the same limitations as discussed in the following.

Specifically, Application No. 10/780,775 comprises independent claim 1 which is essentially just a broader version of claim 1 of the instant application, whereby the primary difference is that the latter application refers to "transmission power level" while the instant application refers to "signal strength of transmissions". At the time of the invention it would have been obvious to one of ordinary skill in the art to select ascertaining based upon transmission power level instead of ascertaining based upon signal strength of transmissions since one of ordinary skill in the art readily recognizes that adjusting the signal strength of transmissions implicitly results in a proportional adjustment of the transmission power level.

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Additionally, the claims of Application Nos. 10/781,121 and 10/781,250 are identical to claims 1-5 of the instant application with the exception that the preamble of the claims of the latter application recites a “program product” whereas the preamble of the claims of the instant application recites a “method”, and the instant application presently includes the additional limitation of “operating on a first channel”. At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a program product for performing a method since one of ordinary skill in the art readily recognizes that a program product may advantageously perform steps of a method in order to provide a functional operation. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Further, the claims of Application No. 10/780,804 and 10/780,214 are identical to claims 1-5 of the instant application with the exception that the latter applications include the additional language of “logic for”, and the instant application presently includes the additional limitation of “operating on a first channel”. At the time of the invention it would have been obvious to one of ordinary skill in the art to implement steps of an invention within logic since one of ordinary skill in the art readily recognizes that it is well known in the art to implement steps of invention with logic in order to perform the invention. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to

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operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Finally, the claims of Application No. 10/781,157 are identical to the claims of the instant application with the exception that the instant application presently includes the additional limitation of "operating on a first channel". As discussed above, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application No. US 2003/0076852 A1 by Fukui discloses that it is well known in the art of access systems for such systems to include only single channel access for each of a plurality of access points (e.g., see paragraph 0006).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571.272.3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin M Philpott